

REMARKS

Claims 4 and 12-19 are pending in the application. Claims 14-17 are withdrawn from further consideration by the Examiner.

Claims 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a).

Claims Rejections 35 U.S.C. 103

Claims 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lendlein (US 2006/0088494). The Examiner's rejection has been carefully considered.

Claim 18, as amended, recites a method for **improving the condition of hair** with natural zein, comprising the steps of:

providing a cosmetic hair-treatment agent comprising from 0.01 to 10.0 percent by weight of said **natural zein as an unhydrolyzed protein** obtained from corn;

bringing the hair in contact with said cosmetic hair-treatment agent for a time sufficient for hardening, strengthening, restructuring, repairing or stabilizing or for increasing luster, volume, or combability of hair; and

rinsing or washing said agent out with water or an aqueous agent.

I. Applicant argues that claims 4, 12, 13, 18, and 19 are not unpatentable over Lendlein because the cited reference does **not** teach the use of a composition comprising natural, unhydrolyzed zein.

The rejection asserts that Lendlein teaches a composition used for recallable hair transformation comprising natural zein (paragraph 0021) at a concentration of 0.1 to 15% (paragraph 0024).

Lendlein teaches a composition comprising at least one crosslinkable **macromer** comprising **crosslinkable areas** (segments) and **thermoplastic areas** (segments). The crosslinkable segments are cross-linked by means of chemical bonds and thermoplastic segments are not crosslinkable (paragraph 0005). Paragraph 0014, line 1, teaches that the macromers are also called "pre-polymers." Paragraphs 0019 and 0020 teach that suitable macromers have the formula $A1-(X)_n-A2$, wherein A1 and A2 designate reactive, chemically crosslinkable groups and $-(X)_n-$ designates divalent, thermoplastic **polymer or oligomer segments**. Paragraph 0021, cited in the rejection as teaching natural zein, states that the **polymer segments** $-(X)_n-$ can be chosen from natural polymers such as zein. In other words, natural zein can be used as a starting material **that is chemically modified to make a macromer** having the formula $A1-(X)_n-A2$, and that macromer is in the composition taught by Lendlein. Consequently, Lendlein does not teach a composition comprising natural zein but rather a composition comprising a macromer that can be made by chemically modifying natural zein, or parts thereof, to include chemically crosslinkable groups. The broadest interpretation of the present claims clearly does not include a method providing a composition comprising a chemically modified zein as opposed to natural zein.

II. Applicant argues that claims 4, 12, 13, 18, and 19 are not unpatentable over Lendlein because the cited reference does **not** teach a composition that is a "cosmetic hair treatment agent" that is used for a time sufficient for "**restructuring**." The term "restructuring," recited in present claim 18 is understood as being synonymous to "repairing" and cannot be interpreted as being synonymous with changing the shape of a hairstyle, as taught by Lendlein.

The meaning of "restructuring" is, in and of itself, discernable from the meaning of the terms "shaping" or "reshaping." Accordingly, no limitation need be read from the specification into the claims for one skilled in the art to determine the meets and bounds of the present claims. The claims, read in light of the specification, further support Applicant's argument that the presently claimed method cannot to be confused with a method for styling hair, as illustrated by the following:

- Paragraph 0001 of the present specification states that the object of the present invention “is the use of natural zein from (...) **structure improvement** (restructuring),” which clearly equates restructuring with the improvement of the hair structure and not shaping the hair into a hairstyle.

- Paragraph 0012 of the present specification states “Surprisingly, we have found that by use of natural zein the **structure** of keratin fibers (hair) is modified” and “besides a hair-care effect resulting from action on the hair surface (cuticula) (...) we observed, in particular, a **repair effect**.” From this disclosure it is clear that the term “restructuring” recited in claim 18 refers to changing the structure of the hair (i.e. keratin fibers) and not changing the shape of a hairstyle.

- Paragraph 0014 of the present specification states “(...) not only is restructuring (repair) of damaged keratin fibers (...),” which clearly equates restructuring with the repair of damaged keratin fibers.

In contrast to the presently claimed invention, Lendlein teaches a method for providing recallable hair-shaping that is quite distinct from hair repair, as illustrated by the following recitations from Lendlein:

- Paragraph 0003: “Products for providing a recallable hair transformation (hair-shaping) enabling a high degree of recovery of once-programmed hair-do” and A method enabling a permanent hair-shaping **without** requiring an impairing **intervention into the hair structure**.” Here, Lendlein clearly distinguishes between the referenced method and any method for restructuring hair.

- Paragraph 0013: “Deformation and retransformation (recovery) can be carried out over multiple cycles,” indicating that “recallable,” in the context of Lendlein refers to the “recovery” of a hair-do and not to a recovery of hair fiber structure as meant by “restructuring” as recited in present claim 18.

In summary, the present claims are not unpatentable over Lendlein because Lendlein teaches a method having a different purpose for the presently claimed method and uses different compositions from those recited on the present claims. Since

Lendlein and the presently claimed invention use different compositions to achieve different aims, it would not have been possible, nor would one of ordinary skill in the art have had any motivation, to modify Lendlein in such a way as to produce the presently claimed method.

In view of the foregoing arguments, Applicant respectfully requests that the rejection of claims 4, 12, 13, 18, and 19 under 35 U.S.C. 103(a) as being unpatentable over Lendlein be withdrawn.

Conclusion

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully Submitted,



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